GRAPHISOFT®

ARCHICAD 9

Special Edition Library

Manual

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Preface

Dear AC User!

This Manual contains the short description of the changes and enhancements that have been completed in the US Library since the AC9 version. This document gives you a list of the new or modified library objects and also detailed instructions for how to use them.

Important Note
We have significantly changed the parameters and the user interface of some objects (e.g doors and windows) therefore this library is not compatible with the AC 9 US library. In order to avoid any conflicts between new and old objects please don't load this library over an existing project and do not load old and new ArchiCAD libraries together! Please also read the detailed object documentations before starting to use them.

Acknowledgements

We would like to say thank you for all the members of the US Local Content Beta Forum and the beta testers who contributed to the development of this library. Special thanks to *Karl Ottenstein* for updating the MSA library and *Ransom Ratcliff* for developing the new startup template.

Installation

1. Download the compressed library and startup files from the library update web site and uncompress them on your computer.
2. Move the *AC9 Library Special Edition folder* and the *AC9 Special Edition StartUp.tpl* file into your ArchiCAD folder.

For best performance and compatibility we recommend using the SE library with the new startup template. For this you have to do the following:

1. Start ArchiCAD
2. Select Fi*le/ New…*
3. Choose *Use a template*
4. Select the *AC9 Special Edition StartUp.tpl* from the ArchiCAD folder
5. The *AC9 Library Special Edition* will be automatically loaded if you have placed it in the ArchiCAD folder

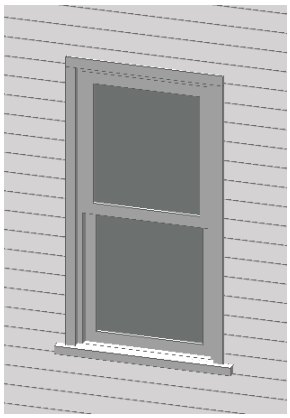
1. Doors and Windows

List of Library Parts
All elements of the *Doors 9* and *Windows 9* folders have been updated (except wall openings and bay and bow windows).

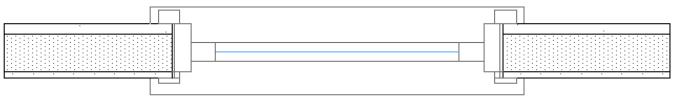
Instructions
1. Before placing the doors and windows on the floor plan select the type of the wall (in which the object will be inserted) on the General tab page of the User interface.
2. Set the unit size and the rough opening size on the General tab page of the user interface.
3. If the object is placed in a brick veneer wall you also have to define the masonry opening size
4. Place the object in the corresponding type of wall on the floor plan
5. **Please read the illustrated door and window manual for more info:**
   Window Manual
   Door Manual

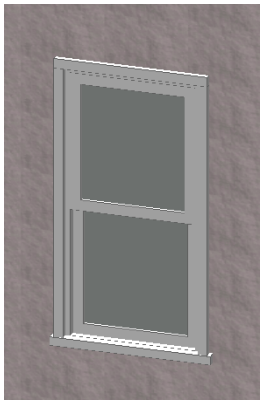
Wall Types

We have introduced a *Wall Type* parameter with the following options: *Masonry Wall, Stud Wall, Stud Wall with Siding* and *Brick Veneer Wall*. This parameter has to be set correctly before placing the window in a wall.
The default parameter values are changing according to the actually selected wall type

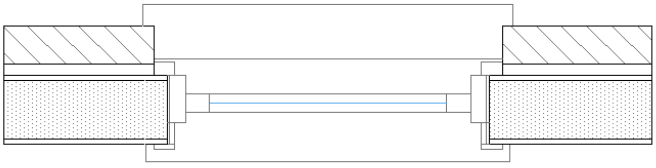


Stud Wall with Siding (detailed floor plan and exterior 3D view)

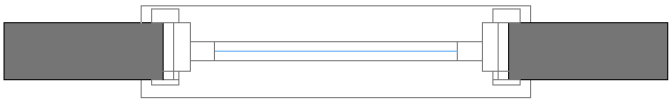


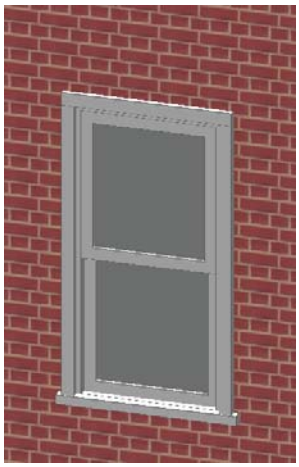


Stud Wall (detailed floor plan and exterior 3D view)



Brick Veneer Wall (detailed floor plan and exterior 3D view)





Solid Wall (detailed floor plan and exterior 3D view)

Windows in different wall types

User interface

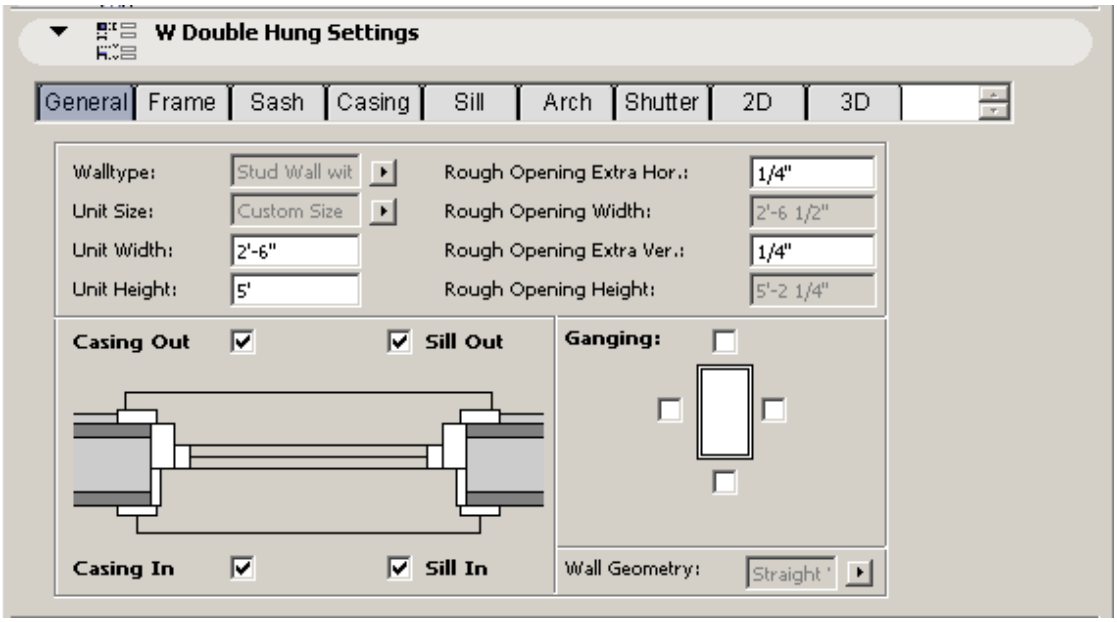
We have introduced a completely new user interface for all doors and windows in order to make the parameter setting easier and faster.

The user interface contains the graphical representation of all parameters except “ArchiFM & Listing” and “Cavity Closure”

A new "General" tab page is set as default in the custom setting dialog. This graphical interface includes only the most commonly used parameters. Novice users can get along with these parameters in early stages of the design.

The figures on the user interface tab pages show the real structure of the actual window and wall.

Different groups of parameters are placed on separate tab pages for easier navigation.



The General tab page of the new window user interface

Main Dimensions

The most typical US unit sizes are available from a pop-up list

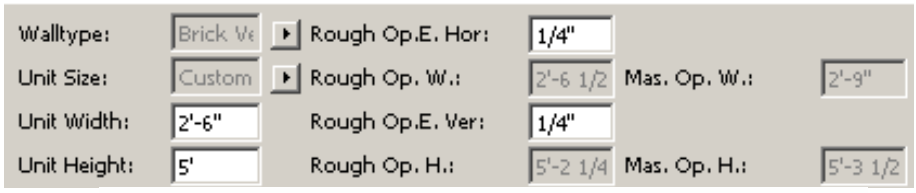
Rough opening size can be defined with the "rough opening extra" parameter to avoid incorrect rough opening sizes when stretching the windows on the floor plan.

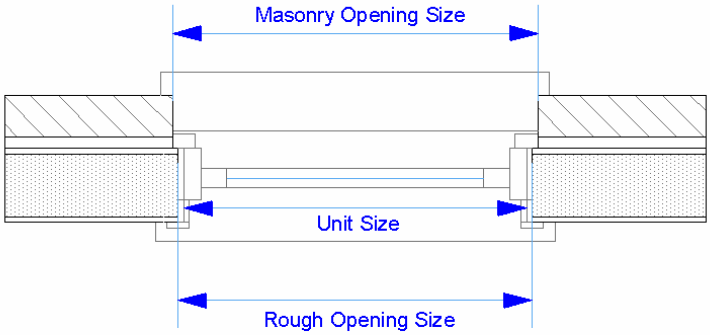
There are two methods for defining the Masonry Opening:

1, Masonry Op.= Unit Size+Brick Molding Width+Brick Molding Offset

2, Masonry Op.= Unit Size+Masonry Opening Extra

You can switch between these options on the “Brick Veneer tab page.





Unit size, rough opening and masonry opening

Floor plan symbol

New floor plan symbol option has been added to the *2D Detail Level* parameter. Currently the following options are available: *Scale sensitive, Detailed, Middle, Simple, Off*

Users can customize the scales where the floor plans symbols are changing

Background fills can be turned on/off for all doors and windows (including frames, sills, leafs etc.)

Middle hotspot has been added to the windows floor plan symbol (on the exterior side) to make dimensioning easier

Show sill option for windows

Show grills for windows

Ghost swing option for doors

Double line leaf option for doors in *Middle* scale

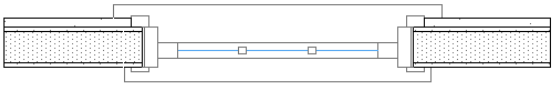
Optional clearance hotspots added for doors. This feature can be very useful when designing spaces for disabled people.

Detailed

Middle

Simple

OFF



Detailed, Show Grills=ON

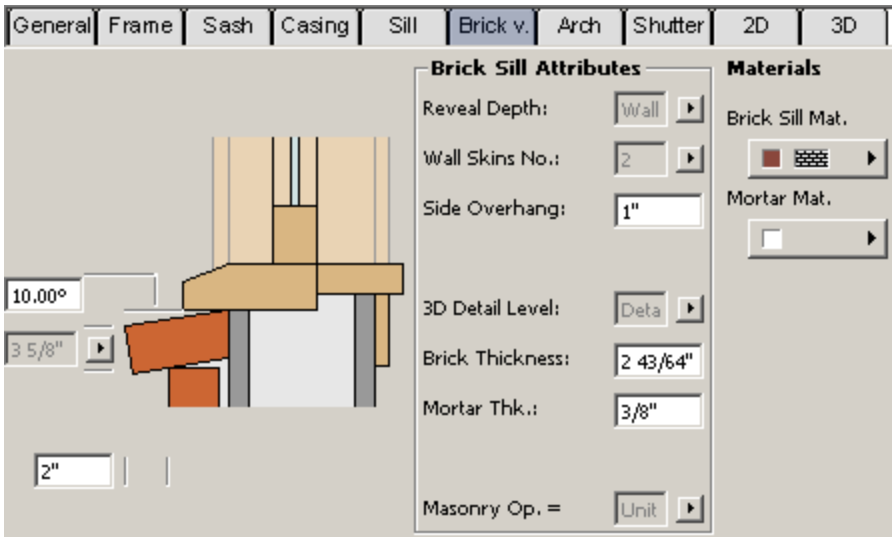
Detailed, Show Sash Frame=OFF

Window floor plan symbols

Brick veneer

Brick veneer can be aligned automatically to any wall layer (using the reveal setting), or manually by defining the depth of the reveal.

You can switch between these options on the “Brick Veneer tab page



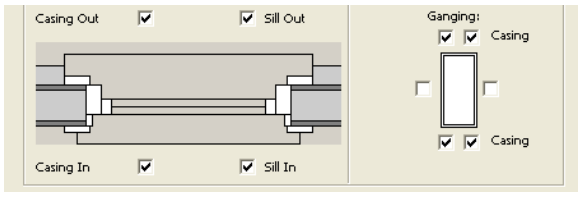
The brick veneer setting tab page

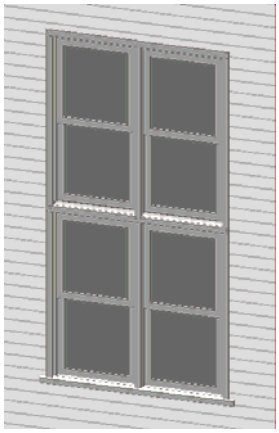
Window Sill

Brick and wood sill options
Stool overhang adjustable
Sill overhang adjustable
Bottom frame at sill option added
Value list for casing and sill with the most typical sizes

Ganging

Ganging option in four directions
With Casing or *Without casing* options
Adjustable spacing between ganged windows





Ganging options

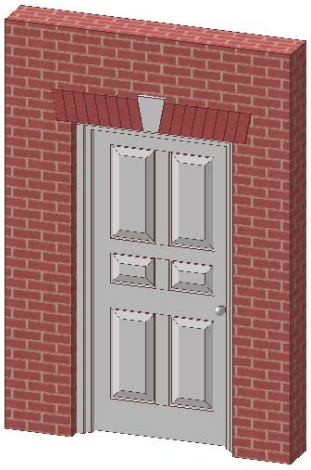
Masonry Arch

Masonry arch option is added to all doors and windows with the following options: *Masonry Arch, Masonry Arch Jack, Jack Arch with Keystone*
Stucco and *Brick Types* options
Top trim overhang adjustable

Masonry Arch, Stucco

Masonry Arch, Brick

Masonry Jack Arch



Masonry Jack Arch with Keystone

Masonry arch types

Window Sash

Unequal sash sizes can be set with the following methods: proportion, bottom sash height, equal glass panes

If the “equal glass panes” option is selected the size of the bottom and top sash is automatically calculated so that each glass panes has the same height

H-V Grid, Equal Sash Sizes

H-V Grid, Equal Glass Pane Heights

Equal sash sizes and equal window pane heights

Door panels

Descriptive names used for door panel styles (e.g. *Standard 4 Panel, Eyebrow 4 Panel* etc.)

The most typical US door panels are added to the list

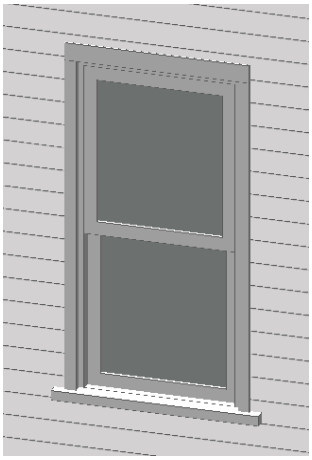
Door panel styles

Casing

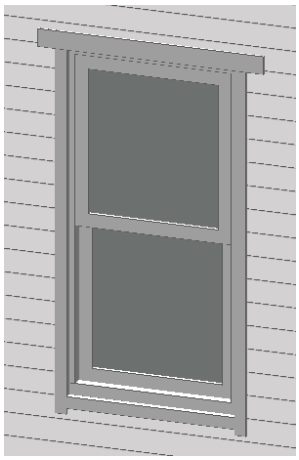
Brick Molding Bottom Overhang

Casing Trim Bottom Overhang

Brick Molding Width Top, Casing Trim Width Top parameters added



Sill Out=ON
Brick Molding Top Overhang=OFF
Brick Molding Bottom Overhang=OFF
Bottom Brick Molding=OFF



Sill Out=OFF
Brick Molding Top Overhang=ON
Brick Molding Bottom Overhang=ON
Bottom Brick Molding=ON

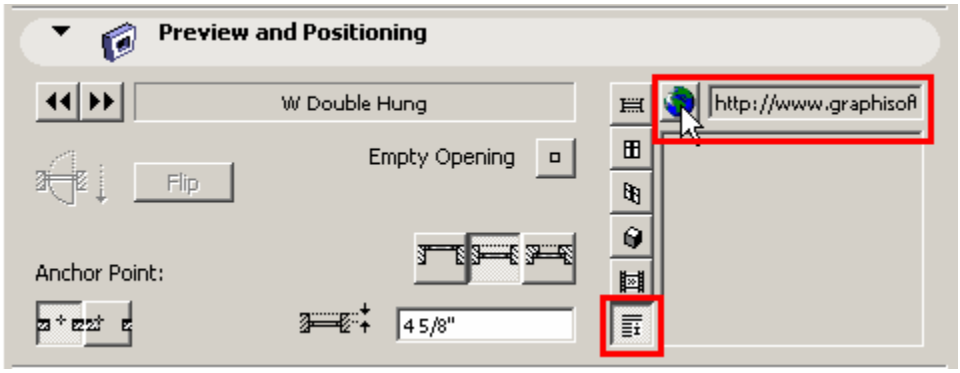
Casing styles

Materials

Texture direction corrected in Open GL and Rendering views
Default material set to White

Documentation

A comprehensive user manual was written about the doors and windows of the Special Edition Library. These documents contain the detailed description of new and existing features with many illustrations. You can download these manuals if you select any door or window from the library and click on the web link on the info tab page in the object settings dialog. We highly recommend for all our users to read these documents before using the new doors and windows.



Link to the documentation

2. Storefronts

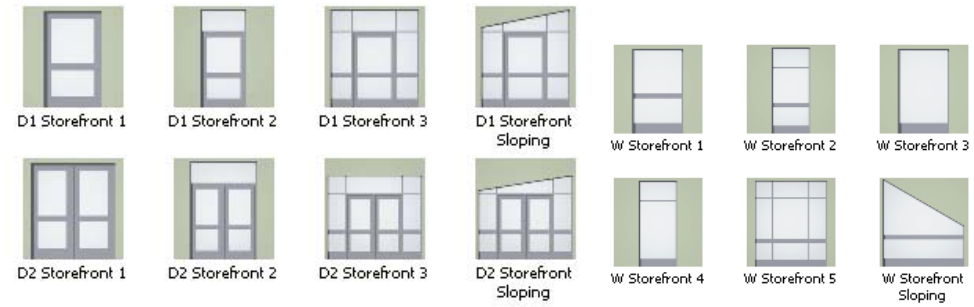
List of Library Parts

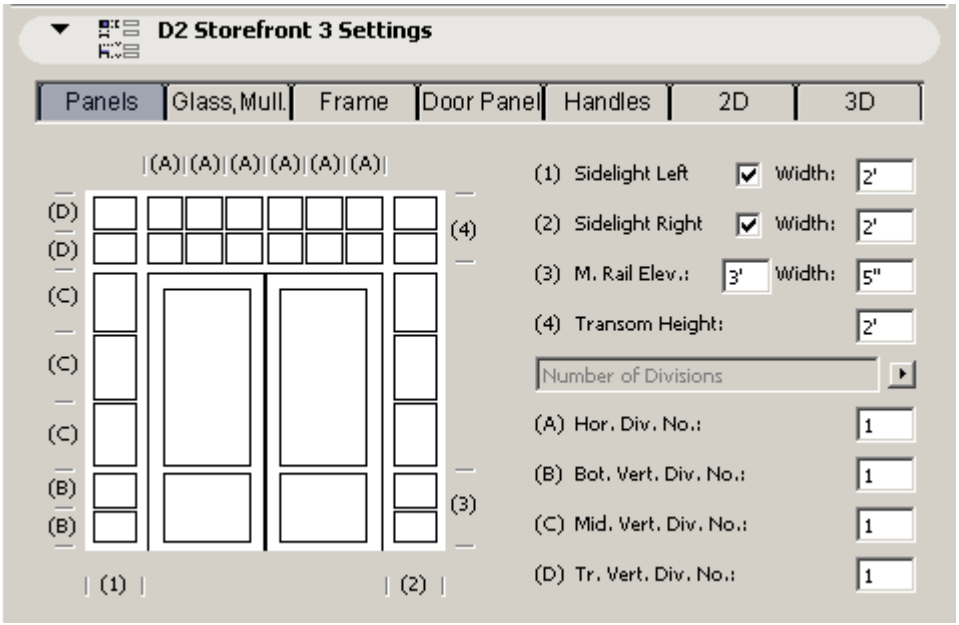
All elements of the *08 Door-windows 9 / Storefront 9* folder have been updated.
W Storefront Sloping is a new object.

Features

More flexible configuration of rail sizes (bottom, middle, top mullions)
New floor plan symbols: Simple, Middle, Detailed
If the mullion widths are set to zero the mullions will be turned off
Texture direction corrected in 3D
Configurable rail sizes for door panels
Panic bar options added to D2 Commercial Door
Ghost swing in D2 Storefront 3
Ghost Opening Line on-off parameter

Please read the illustrated storefront door and window manuals for more info:
Storefront Manuals





Storefront objects and their user interface

3. Elevator

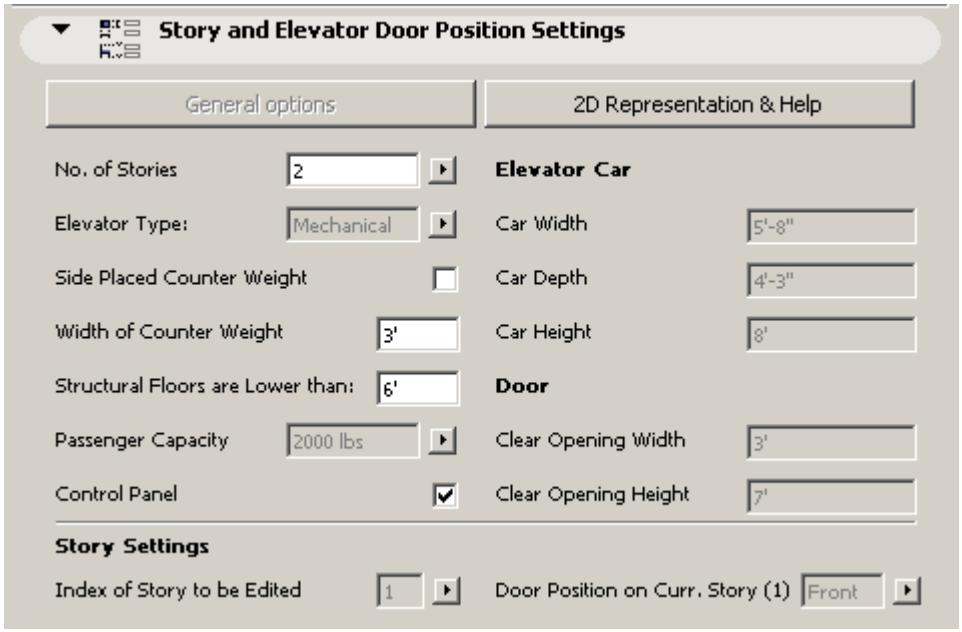
Name of Library Part
Elevator Standard is a new object in the *14 Conveying Systems 9/ Elevators and Escalators 9* folder

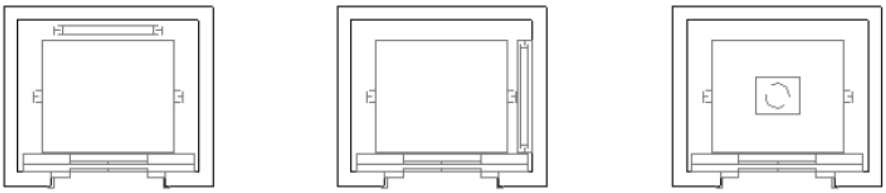
Instructions for Use

1. Define at least two stories in the *Story settings* dialog
2. Place the elevator object on the bottom floor and turn on the *Show on all stories* option in the *Object Setting* dialog
3. Open the parameter list of the object (or the user interface) and set the number of required elevator stories
4. The elevator's story heights are automatically set according the *Story settings* dialog
5. Go back to the object editor and modify the door position if needed on each story with the "Index of story to be edited" parameter
6. There is a new parameter called *Structural story height*. If the height of a given story is less then this value, the elevator will be represented with only its shaft wall contours on that story.

Features

No limitation for the number of stories
Elevator story heights changes automatically according to the "Story settings" dialog
Mechanical vs. Hydraulic options
Passanger capacity parameter with the most typical values. The car size will be automatically set according to this parameter.
Car size and shaft size can be set independently
Side counter weight option for mechanical elevators
Counter weight can be turned off in 2D
"Structural story" parameter added. If this option is turned on the object is represented with only the shaft walls on that story.





Plan symbol and user interface of the elevator object

4. Gutters and Downspouts

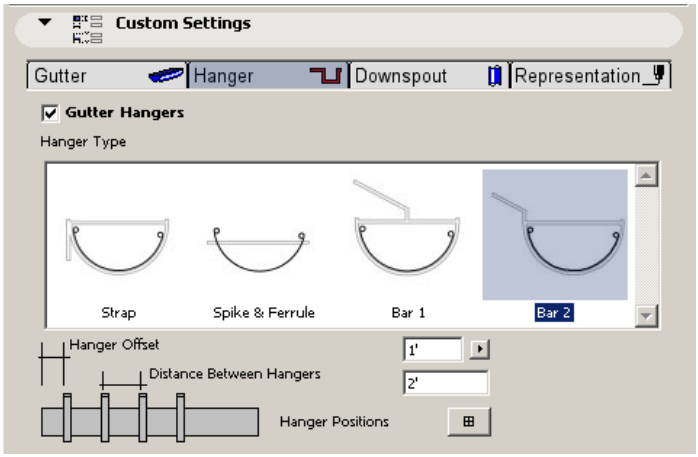
List of Library Parts

Downspout
Downspout Complex
Downspout Elbow
Downspout Offset
Gutter
Gutter Head Leader
Gutter Mitered

All the elements are located in the *07 Therm and Moist Prot 9 / Gutters 9* folder.

Features

All objects are equipped with user editable hotspots and a graphical user interface.
You can choose the most typical US gutter profiles from a pop-up value list.
Elements can be connected to each other allowing you to model complex gutter and downspout systems.
Different profiles (rectangular, rounded, square etc.) with adjustable sizes
Typical/custom sizes available from a popup list
Sloping angles can be defined for gutters
Option to place parts separately
User defined number and position for straps and brackets
Hangers can be turned off
Hangers angle can be set
Gutter ends can be mitered for joining other gutters
Leaderhead resizable



Gutters and their user interface

5. Ladders

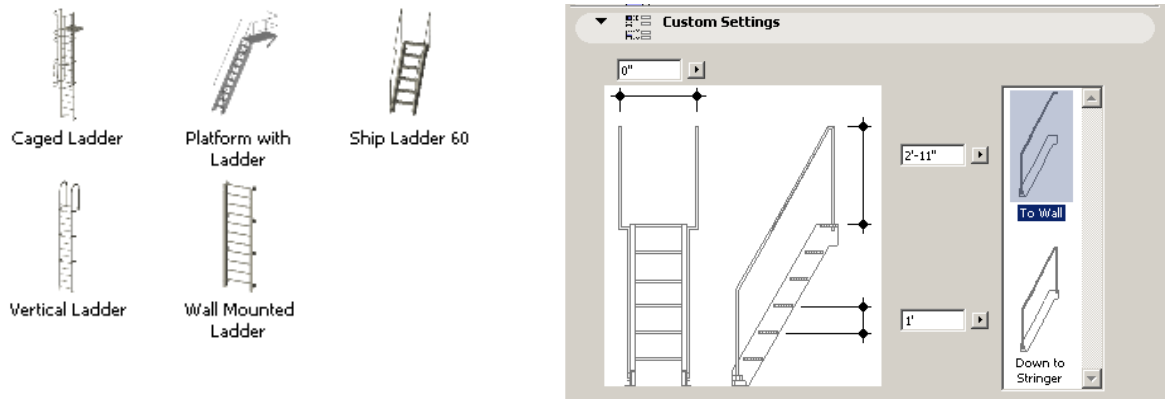
List of Library Parts

- Caged Ladder
- Platform with Ladder
- Ship Ladder 60
- Vertical Ladder
- Wall Mounted Ladder

All the elements are located in the *10 Specialties 9* / *Ladders 9* folder.

Features

- The most important structural dimensions are all parametric
- Hotspot editing in 2D and 3D
- Graphical user interface.



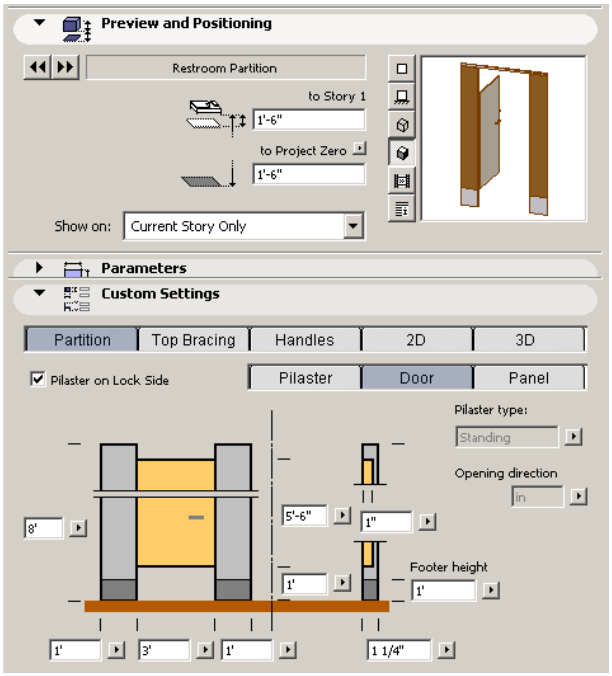
Ladder objects and their user interface

6. Restroom Partition

Name of Library Part
Restroom Partition is a new object in the *10 Specialties 9 / Partitions 9 folder.*

Features

You can create restroom stalls with pilasters, doors and partitions
Main Types: Pilaster, Door with pilasters, Panel
Pilaster Types: Standing, Hanging
Graphical User Interface
Main parameters are graphically editable in 2D and 3D views
Optional top bracing
Optional footer
Typical latches or pullers can be selected from a list



Restroom partition user interface

7. Sport Fields

List of Library Parts

- American Football
- Baseball Field
- Basketball Court
- Field Events
- Soccer Field
- Tennis Court

All the elements are located in the *17 Sport-Recreation 9 / Sport Fields 9* folder.

Features

Baseball Field
- Field types: Major league, Little League
- Optional outfield
- Optional outfield fence
- Adjustable backstop height
- Infield (dirt vs. grass)

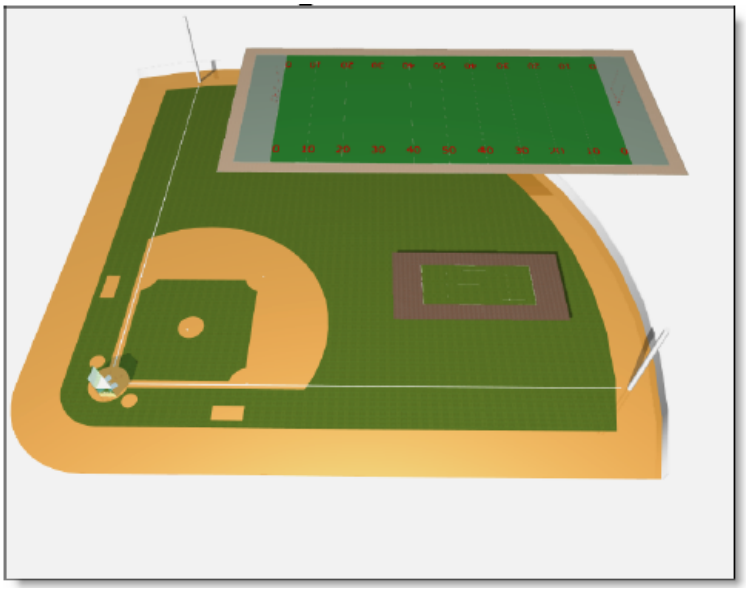
American Football
- NFL, CFL and NCAA sizes
- Field on/off in 3D
- Optional uprights
- Goal post on/off
- Inbound lines on/off

Soccer Filed
- Running tracks deleted. This feature added to the Field Events object.

Basketball Court
- Court Types: Standard, High School, Junior High
- Backboard types (normal, foldable, ceiling)
- Adjustable run-out field sizes

Tennis Court
- Optional run-out field

Field Events
- Filed Types: Football, Soccer, Special field
- Optional "Stripe only" (possible to place it on top of other fields)
- Discus, hammer
- Javelin -Putting and shot
- Running tracks



Baseball and football fields

8. Corrugated Sheets

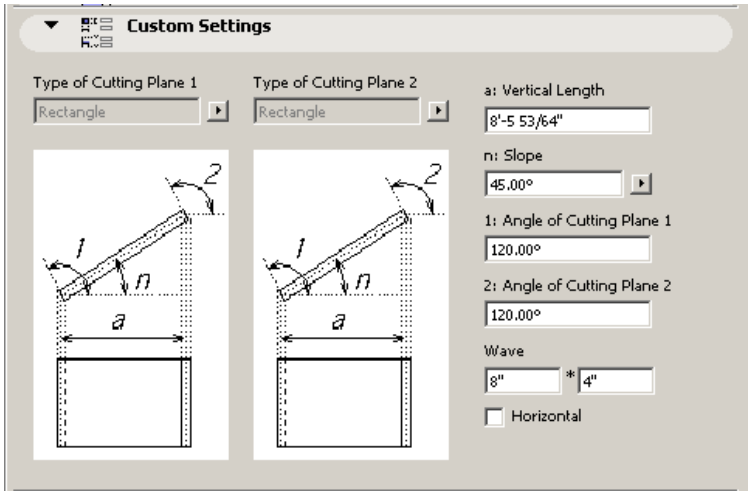
List of Library Parts

Corrugated Sheet Inc
Corrugated Sheet Vert
Profiled Sheet Inc
Profiled Sheet Vert

All the elements are located in the *09 Finishes 9 / Cladding 9* folder.

Features

Revised user interface
Horizontal/Vertical sheeting option



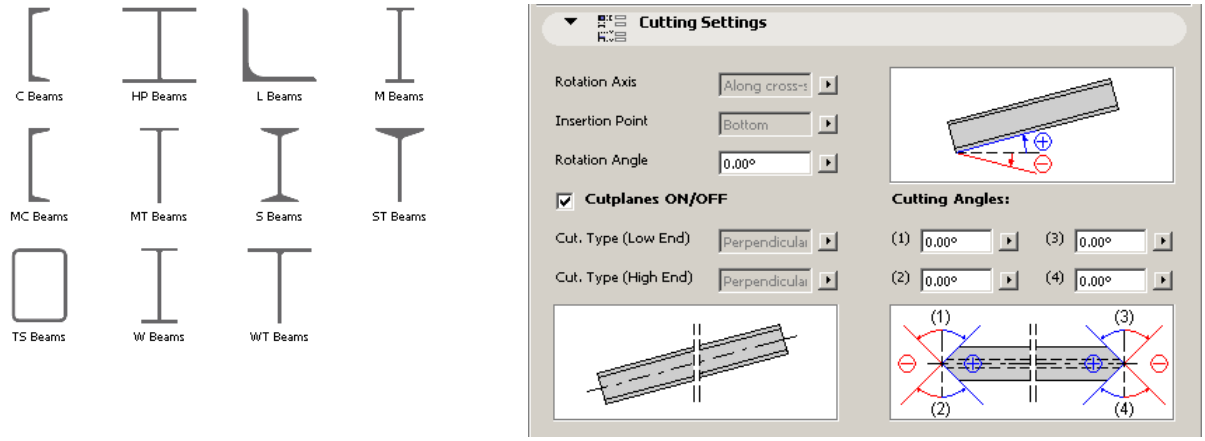
Corrugated Sheet user interface

9. Steel Sections

List of Library Parts
All elements in the *05 Metals 9 / Steel Sections 9* folder

Features

Completely new graphical user interface for steel beams
Selectable insertion points at top or bottom
New preview pictures
More logical cutting angle definition for steel beams
Simple and detailed 3D models



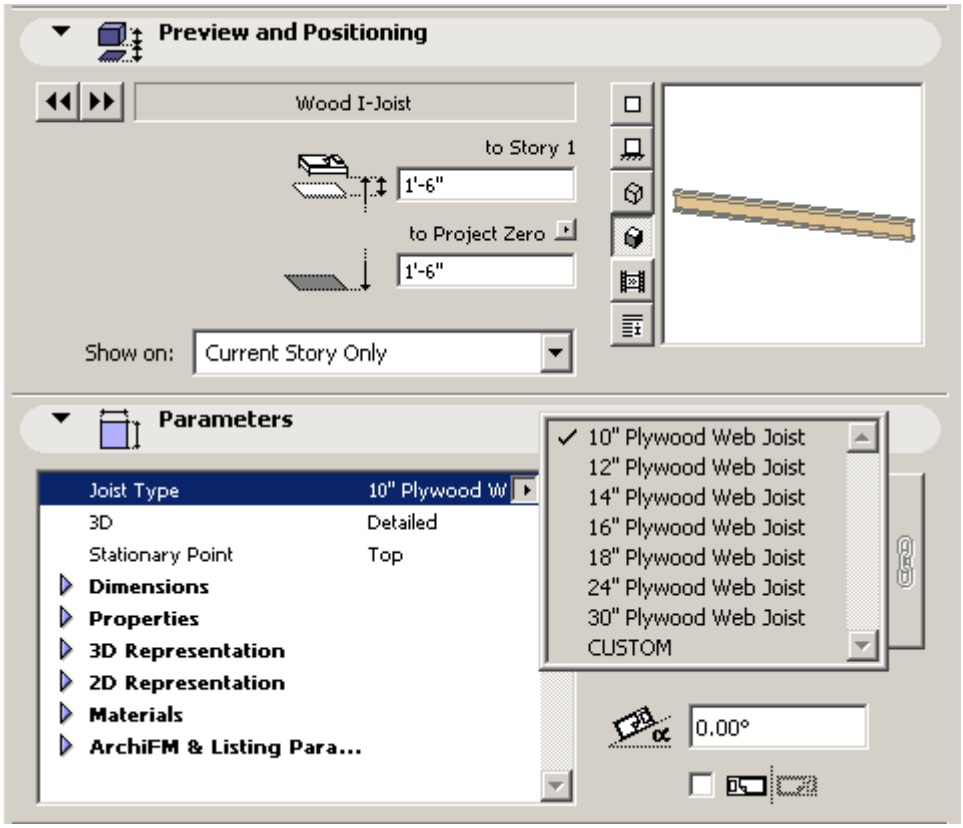
Steel Beams and their user interface

10. Timber Joist

List of Library Parts
Wood I Joist object in the *06 Wood Plastic 9 / Web Joists* 9 folder

Features

Most typical joist sizes are available from a parameter value list
The structural dimensions and properties (area of section) are set automatically
Options to place the object at the bottom or at the top of the beam with the *Stationary Point* parameter



Typical web joist sizes

11. Detailer Library

List of Library Parts
All the elements of the *01 General 9 / Detailer Library 9* folder

Note
Important bugs were reported in the former AC9 MSA Library and in the corresponding documentation. These inconsistencies were fixed and new features were added to some of the objects. We have also renamed the library to Detailer Library and integrated it into the Special Edition library. Furthermore the MSA prefix is changed to DET in the object names.

Please read the updated Detailer documentation for more info:
Detailer User's Guide
Detailer Library Catalogue
Detailer Steel Guide

You can download the updated Detailer template files from here:
Windows
Mac

Features

Documentation
Entirely new User's Guide

Updated Library Catalog
Updated Steel Guide
You can download these manuals if you select any detailer object and click on the web link on the info tab page in the object settings dialog.

Template files

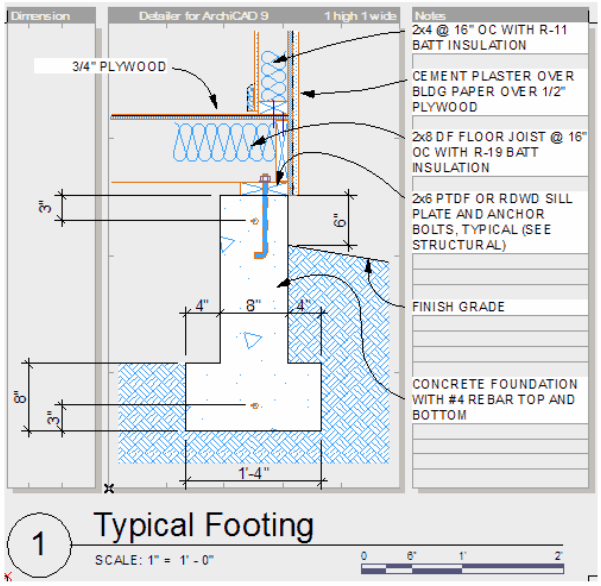
New template files made
The size of the template object is scale-dependent (always have the same output size regardless of drawing scale).

Template objects

DET_Detailer_Template.gsm, *DET_Layout_Template.gsm* and *DET_Module_Size_Calculator* revised and updated
Four editable hotspots enabled: stretch template in grid-size units (snappy), adjust dim and note panel widths, and adjust title area size (margin).
Added hotlines to borders of the cells in the layout template object.
Added hotlines for text line fields of the notes panel.

Detail Objects

Hard-coded fill and pen definitions converted to parameters.
All macros have been set *non-placeable* (macro objects can't be seen in the object browser)
Reported bugs fixed
DET_Screw is a new element in the *Connectors* folder



Typical detail drawing made with Detailer

12. Updated Startup file

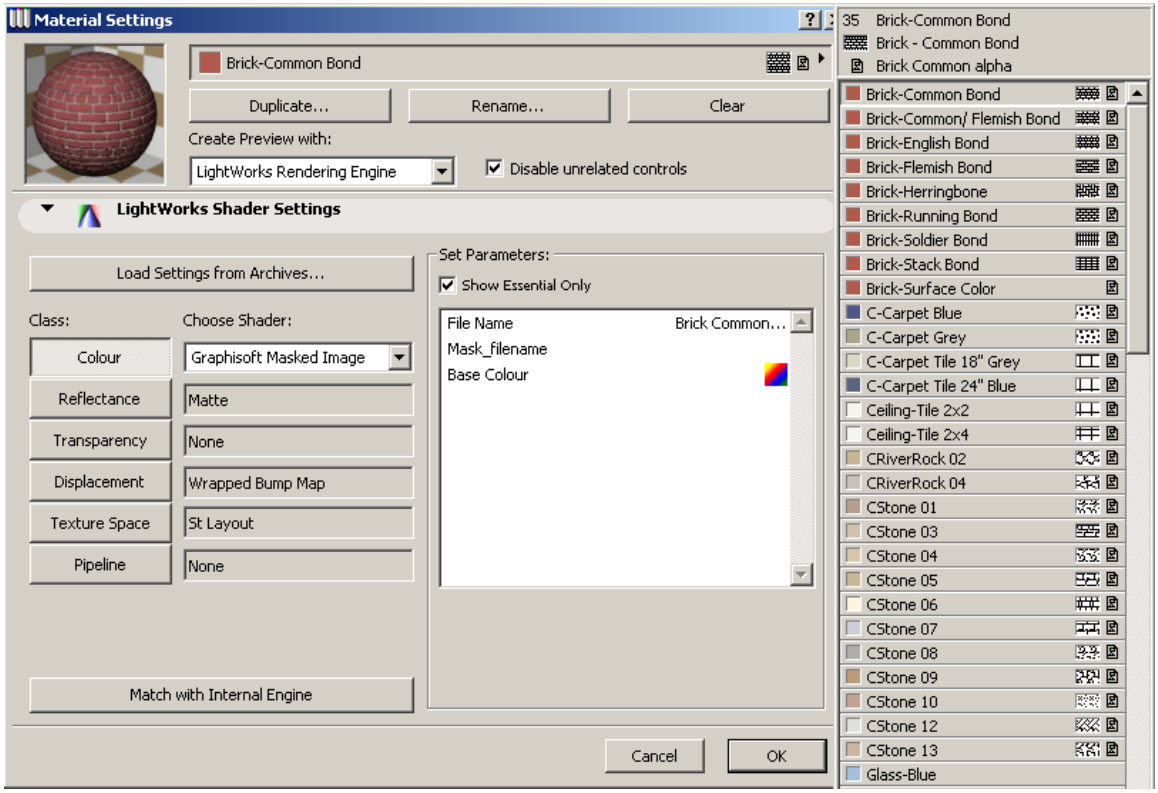
Name of File
AC9 Special Edition StartUp.tpl

You can download the updated startup template file from here:

Windows
Mac

Features

The list of materials have been revised and extended
Material attributes have been modified in order to produce similar results with ArchiCAD and Lightworks rendering engines
Tool setting defaults also revised



Revised material attributes for Lightworks engine

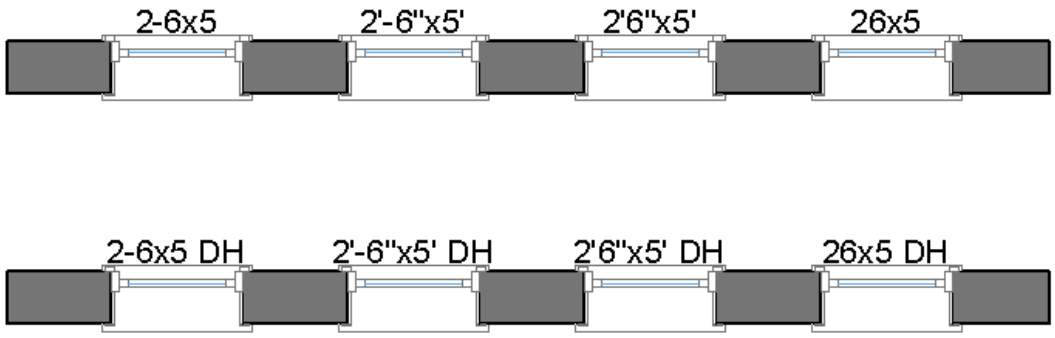
13. Other Changes in the Library

Lamps (16 Electrical 9 / Light Sources 9 folder)

Bath bar light: new object
Night stand lamp: new object
Corrected light casting in LightWorks

Builder Dimension (available for doors and windows)

4 marker styles
Optional suffix



Builder dimension styles

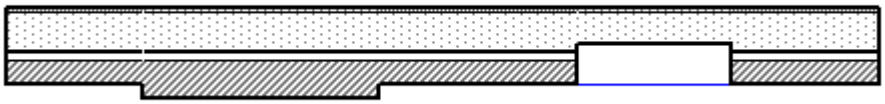
Masonry Arch objects *(04 Masonry 9 / Wall Extras 9* folder)

Hotspots corrected

Correct brick and mortar size and arrangement

W Lesene and W Niche *(04 Masonry 9 / Wall Extras 9* folder)

Correct 2D symbol in composite walls

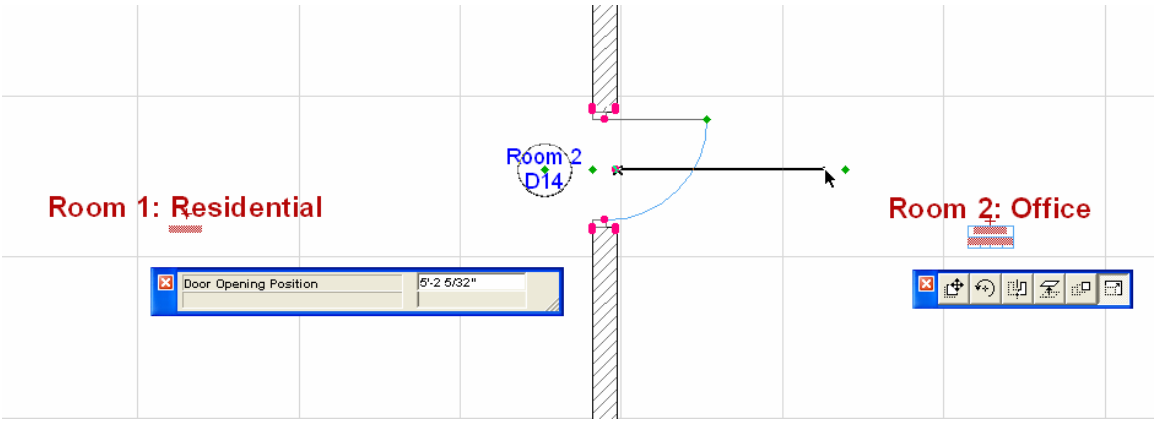


Niche and Lesene objects placed in a composite wall

Door Marker NCS *(available for doors and windows)*

Room ID is a new text option

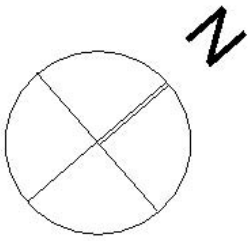
This object has been modified to show the room number independently from the marker position. The marker object always displays that room number where its center of gravity will fall. (You have to consider that the marker starts with the circle and ends with the editable hotspot where the cursor is so the center of gravity of this whole thing must fall into the room you want to show)

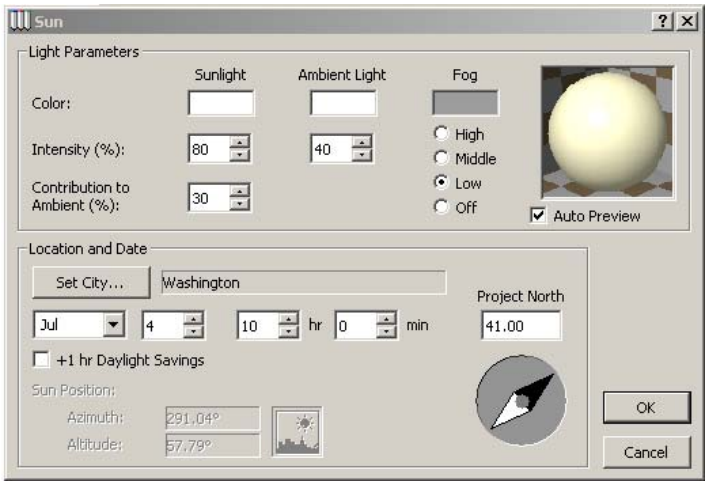


Beds *(12 Furnishing 9 / Beds 9* folder)
Typical beds sizes: Twin, Full, Queen, King, California King

Bar joist *(05 Metals 9 / Steel Structure 9 / Spaceframes 9* folder)
Sloping angle can be set

North symbol (01 General 9 / Graphic Symbols 9 / Drawing Symbols 9 folder)
Follow Project North option: 2D symbol is automatically adjusted according to project north set in *Image/3Dprojection set/More sun..*





North symbol object follows project north

Kitchen Cabinets *(12 Furnishing 9 / Kitchen Cabinets 9* folder)
Counter size is corrected if end panels are turned on

Washer and Dryer objects *(11 Equipment 9 / Kitchen and Household 9* folder)
2D text option added

Sink Belfast *(11 Equipment 9 / Kitchen and Household 9* folder)
Option to turn off drain in 2D

Dormers and Skylights *(07 Therm and Moist Prot 9 / Dormers and Skylights 9* folder)
Slope setting modes: °, % , in 12', in 12"

Roofmaker objects

Revised hotspot editing
Adjustable eave overhang

Piano *(11 Equipment 9 / Leisure 9* folder)
Optional lid positions: Closed, partially open, open

Mouldings *(09 Finishes 9 / Moldings 9* folder)
Default profile sizes have been enlarged

Smoke and Heat Detector *(10 Specialties 9 / Fire Protection 9* folder)
Floor plan symbol according to NCS standards

Sinks *(11 Equipment 9 / Kitchen and Household 9* folder)
Sink General renamed to *Multi Style Sink*

Coat rack and Wall Hanging Racks
Objects moved to *10 Specialties 9/ Hat-Coat Racks and Accessories* folder according to CSI standards

Mechanical (15 Mechanical 9 / Heating 9 folder)
Stop Tap renamed to *Stop Valve*